U.S. Fish & Wildlife Service
Sacramento Fish & Wildlife Office
Species Account
FOUNTAIN THISTLE
Cirsium fontinale var. fontinale

CLASSIFICATION: Endangered
Federal Register Notice 60:6671; February 3, 1995
http://ecos.fws.gov/docs/federal_register/fr2779.pdf (125 KB)

This species was listed as endangered by the California Department of Fish and Game in July 1979. The California Native Plant Society has placed it on List 1B (rare or endangered throughout its range).

Fountain Thistle
J. E. (Jed) and Bonnie McClellan
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CRITICAL HABITAT: Not designated

RECOVERY PLAN: Final
Recovery Plan for Serpentine Soil Species of the San Francisco Bay Area; September 30, 1998.
http://ecos.fws.gov/docs/recovery_plan/980930c_v2.pdf (22 MB)

5-YEAR REVIEW: Started March 25, 2009
http://www.fws.gov/policy/library/E8-4258.html

DESCRIPTION

Fountain thistle is an herbaceous perennial of the aster family (Asteraceae). It has several stout, erect reddish stems 30 to 60 centimeters (1 to 2 feet) high. The basal leaves are 10 to 20 centimeters (4 to 8 inches) long with spine-tipped lobes; the leaves on the stems are smaller.

Flowers are dull white to pinkish, becoming brown with age. The egg-shaped, recurved bracts beneath the flower head distinguish fountain thistle from the most similar thistle in the area, brownie thistle *(Cirsiurn quercetorurn)*.

C.f. var. fontinale is a perennial, flowering from June to October. It is thought to be pollinated by. Seed production may be quite low. The species may hybridize with *Cirsiurn quercatorurn*.

Habitat is restricted to perpetually moist clay openings in riparian or serpentine chaparral between about 90 and 190 meters (300 to 600 feet) in elevation. Associated introduced species include English plantain (*Plantago lanceclata*), pampas grass (*Cortaderia selloana*), and wild oat (*Avena fatua*)

SERPENTINE SOIL PLANTS:

Serpentine soils are formed from weathered volcanic (ultramafic) rocks such as serpentinite, dunite, and peridotite. These soils provide a harsh environment for plant growth. Several factors contribute to the inhospitability of serpentine soils to plant growth

1) Low calcium-magnesium ratio;

2) Lack of essential nutrients such as nitrogen, potassium, and phosphorous; and

3) High concentrations of heavy metals (mineral toxicity).

However, serpentine plant species have adapted to serpentine soils and require them to survive.

See the recovery plan (above) for more information about serpentine soil species.

Contact the Coastal Branch of our office (formerly the Coast-Bay-Delta Branch) at 916-414-6625 for consultations concerning serpentine soil species.

The Bay Checkerspot Butterfly PDF | RTF is an insect that depends on serpentine soil plants, primarily dwarf plantain (*Plantago erecta*).

DISTRIBUTION

Historically, this plant occurred in both San Mateo and Santa Clara counties, but it is now found in only four locations in San Mateo County.

U.S. Geological Survey 7.5 Minute Quads: Palo Alto (428B) 3712242, Woodside (429A) 3712243, San Mateo (448D) 3712253.

THREATS

Fountain thistle is threatened by proposed recreational development, roadside maintenance, competition with non-native plant species and garbage dumping. See the recovery plan (above) for more information.

REFERENCES FOR ADDITIONAL INFORMATION

General references about California plants
www.fws.gov/sacramento/es/plant_spp_accts/plant_references.htm

Kruckeberg, A.R. 1984a. California serpentines: Flora, vegetation, geology, soils, and management problems. University of California Press, Berkeley, California. 180 pp.

_____. 1984b. The flora on California's serpentine. Fremontia 11(5): 3-10.

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